AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Canceled)

2. (Previously Presented) The method of claim 3, wherein the steps (a) through (c) are repeated in a predetermined cycle.

3. (Currently Amended) A method for building up backup master information, comprising the steps of:

(a) receiving connection information from at least one of a plurality of slaves in a network, wherein the received connection information includes at least one of a received signal strength indication (RSSI) and link quality information;

(b) determining a priority of said at least one of the plurality of slaves to be used as a backup master, when a network master disappears, according to at least one of the RSSI and the link quality information included in the received connection information; and

(c) announcing the determined priority to at least another one of the plurality of slaves prior to the network master disappearing~~, wherein the received connection information includes received signal strength indication (RSSI) and/or link quality information~~.

4. (Original) The method of claim 3, wherein, in the step (b), if said at least one of the plurality of slaves has a higher RSSI than another one of the plurality of slaves, said at least

one of the plurality of slaves is given a higher priority, which is used to choose a new network master.

5. (Original) The method of claim 3, wherein, in the step (b), if said at least one of the plurality of slaves has a higher link quality value than another one of the plurality of slaves, said at least one of the plurality of slaves is given a higher priority, which is used to choose a new network master.

6. (Original) The method of claim 1, wherein the network is a Personal Ad-hoc Network.

7. (Original) The method of claim 1, wherein in the step (c), the determined priority of the backup master is announced to the at least another one of the plurality of slaves, through a broadcasting channel.

8. (Previously Presented) A method for designating a new master of a network when a preexisting network master disappears, the method comprising the steps of:

(a) determining at a slave whether the preexisting network master has disappeared;

(b) if the preexisting network master has disappeared, checking a rank assigned to the slave by the preexisting network master which determined the rank based on connection information received from the slave by the preexisting network master, wherein the rank is used for choosing a new network master and is received before the disappearance of the preexisting network master; and

(c) changing the slave to the new network master if it is determined that the rank is highest of any one assigned to a plurality of slaves.

9. (Original) The method of claim 8, after the step (c), further comprising the step (d) of performing inquiry scan and page scan.

10. (Previously Presented) The method of claim 9, after step (d), further comprising the steps of:

(e) determining whether a new device attempts to establish a connection through the network;

(f) accepting a request of the new device for connection, requesting the new device to change to a role as a slave, and remaining as the new network master;

(g) storing information of the new device, and announcing the information of the new network master and each of the plurality of slaves linked throughout the network, to each of the plurality of slaves linked throughout the network; and

(h) checking for a change of a master mode if there is no connection request from the new device in step (e), returning to the step (d) when no change to the master mode is determined, and terminating the master mode when a change to the master mode is determined.

11. (Original) The method of claim 10, wherein, in the step (h), the change of the master mode is determined when a role of a device serving as the preexisting network master is changed to a role as one of the plurality of slaves, by a user, when a Bluetooth function of the

preexisting network master is switched off, or when power of the preexisting network master is turned off.

12. (Original) The method of claim 8, wherein step (a) comprises the sub-steps of:

(a1) checking a connection status with the preexisting network master;

(a2) attempting to reconnect with the preexisting network master if disconnection is detected in sub-step (a1);

(a3) checking whether reconnection with the preexisting network master is successful, and returning to the sub-step (a1) if the reconnection with the preexisting network master is successful; and

(a4) determining whether the preexisting network master has disappeared, if reconnection with the preexisting network master is not established in sub-step (a3), and informing a host of the event as a "Disconnection Complete Event".

13. (Original) The method of claim 12, wherein the sub-step (a1) is repeated in a predetermined cycle while the connection with the preexisting network master remains.

14. (Previously Presented) A method for establishing a connection between a new master and a remaining plurality of slaves of a network when a preexisting network master disappears, the method comprising the steps of:

(a) checking whether the preexisting network master has disappeared;

(b) checking backup master rank information which is assigned to the slave by the preexisting network master which determined the backup master rank information based on

connection information received by the preexisting network master from the slave, when it is determined that the preexisting network master has disappeared in the step (a);

(c) attempting to establish a connection with the new network master when it is determined that one of the remaining plurality of slaves does not have a highest priority, according to the backup master rank information; and

(d) remaining as one of the remaining plurality of slaves if a connection with the new network master is established in the step (c).

15. (Currently Amended) The method of claim 8, wherein the connection information received from the slave by the preexisting network master includes at least one of received signal strength indication (RSSI) and link quality information, and the preexisting network master determines the rank based on at least one of the received signal strength indication (RSSI) and the link quality information.

16. (Currently Amended) The method claim 14, wherein the connection information received from the slave by the preexisting network master includes at least one of received signal strength indication (RSSI) and link quality information, and the preexisting network master determines the backup master rank information based on at least one of the received signal strength indication (RSSI) and the link quality information.